

## **REMARKS**

### **I. Introduction**

Claims 1, 2, 4-6 and 10 were rejected under 35 U.S.C. §102 (b) as being anticipated by USPN 1,799,510 to Goldberg.<sup>1</sup> Claims 7-39 were previously cancelled. New claims 40 and 41 are added. Consequently, claims 1, 2, 4-6, 40 and 41 are at issue. These rejections as they may apply to the claims presented herein are traversed for the reasons stated below.

### **II. The prior art**

Goldberg describes a hair pin. Goldberg has nothing to do with electronics and, as such, does not teach or suggest using the hair pin with an electric coil or magnets.

### **III. The problem and the solution**

Electrical receivers such as those used in hearing aids need to be as small as possible since customer comfort and acceptance often depend upon the size of these devices. However, it is also desirable for the receiver to supply a sufficient sound level for the wearer so the wearer is able to hear the sounds. In this respect, receivers typically employ an armature that is caused to vibrate in the presence of magnetic flux; the vibration eventually produces sound that is heard by the wearer. The greater the vibration of the armature, the greater the sound level provided to the wearer of the hearing aid.

Prior attempts at increasing the sound level have relied upon increasing the flux to increase the armature deflection and thereby to increase the output sound level. Unfortunately, increasing the flux generally requires increasing the thickness of the armature, which decreases the deflection of the armature (since a thicker element is typically more difficult to deflect than a thinner element). Thus, these prior approaches actually exacerbate the problem.

The Applicant's claimed approach uses a particular geometry to both retain a small receiver size and maximize the amount of sound produced at the outlet of the receiver. In particular, the Applicant's claimed approach uses an armature with a first leg portion coupled to a second leg portion via a connection portion. The connection portion is thin and wide compared to the first leg

port portion. This geometry does not require an increase in the amount of flux needed, but the relative thinness of the connection portion ensures that the armature deflection increases in the presence of the flux. This increased deflection in turn increases the sound pressure at the outlet of the receiver thereby increasing the sound level presented at the outlet of the receiver.

With all due respect, the prior art does not teach or suggest these features. More specifically (and as will be discussed in greater detail below), the cited Goldberg reference fails to teach or suggest at least the following:

- the first leg portion configured to be disposed within an electrical coil and between a plurality of magnets in a receiver; and
- that the first leg portion moves with respect to the second leg portion in the presence of magnetic flux created by the electrical coil and the plurality of magnets within a receiver.

**IV. The claims are allowable-the art does not show the recited geometry as used with an electric coil and a plurality of magnets**

Goldberg does not teach or suggest a first leg portion configured to be disposed generally within an electrical coil of the receiver and generally between a plurality of magnets of the receiver as recited in claim 1. To the contrary, Goldberg is a hair pin and is not configured to be used with electrical coils and magnets within receivers. Goldberg also does not teach or suggest that the first leg portion is configured and operable to move with respect to the second leg portion in the presence of a magnetic flux created by the plurality of the magnets and the electrical coil also as recited in claim 1. To the contrary, since Goldberg does not relate to magnets or electrical coils not magnetic flux is ever produced or operable to move portions of Goldberg's hair pin. Since at least one element of claim 1 is not taught or suggested by Goldberg, claim 1 is not anticipated by Goldberg. The remaining claims depend directly or indirectly upon claim 1. Since claim 1 is not anticipated by Goldberg, these dependent claims are also not anticipated by Goldberg.

New claims 40 and 41 are added and have recitations similar to claim 1. It is submitted that these claims are allowable for the same reasons as claim 1.

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<sup>1</sup> The Applicant notes that claim 10 was previously cancelled.

**V. Conclusion**

With these amendment and remarks, the Applicant submits that the claims are in condition for allowance. The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

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